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March 1988

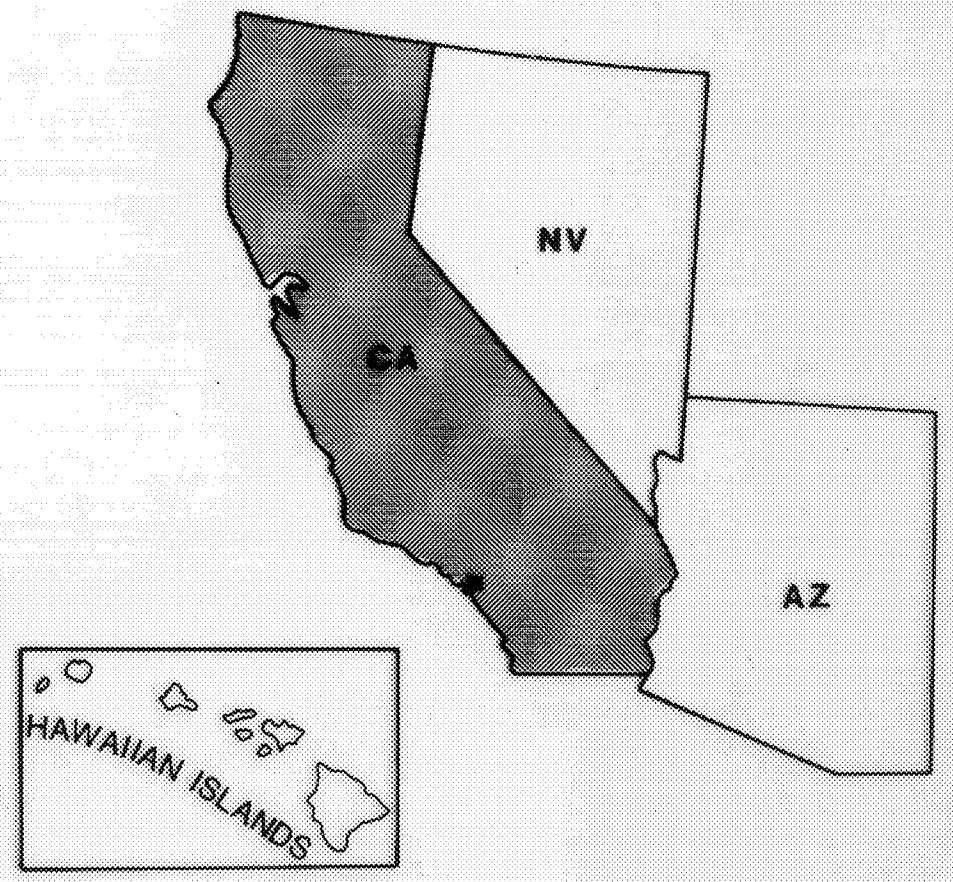
Research and Development

EPA

AERIAL PHOTOGRAPHIC ANALYSIS OF WASTE DISPOSAL, INCORPORATED

Whittier, California

EPA Region 9



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AERIAL PHOTOGRAPHIC ANALYSIS OF WASTE DISPOSAL, INCORPORATED

Whittier, California

by

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Contract No. 68-03-3245

Project Officer

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ENVIRONMENTAL MONITORING SYSTEMS LABORATORY
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U.S. ENVIRONMENTAL PROTECTION AGENCY
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ABSTRACT

This report presents a historical analysis of the Waste Disposal, Incorporated facility located in Whittier, California. Archival aerial photography spanning 60 years (1928-1987) was used as the primary information source for the preparation of this report.

Photography revealed that the Waste Disposal, Incorporated facility was active prior to 1928. The 1928 photography showed the then 60-acre site consisted of two large, waste oil reservoirs. The reservoirs were approximately 500 feet in diameter and each, reportedly, had an approximate 1 million gallon capacity. These reservoirs were concrete-lined, backed by an earthen embankment. A second earthen containment surrounded each reservoir. Both reservoirs were covered on this date. Pools of spilled liquid were noted within the site. In 1937, four empty, unlined waste lagoons were noted. The reservoirs remained covered. The 1945 photography showed the reservoirs uncovered and the contents removed. The surrounding grounds had been cleared and were relatively free of staining. A pit had been dug in the southeast corner and contained a dark, unidentified liquid. Between 1928 and 1945 there were no visible support facilities within the site boundaries. By 1953 one of the two reservoirs had been torn down and commercial facilities built on the property. The site, at this time, occupied approximately 30 acres. Little change was noted at the remaining reservoir. Commercial facilities had been constructed along the east and south sides of the site. The four lagoons noted in 1945 had been removed. By 1963, commercial facilities surrounded the site to the south, east, and west. A new school was constructed to the north. The remaining reservoir was being filled in. By 1968, the reservoir had been filled in and the area leveled. A large, rectangular fill mound occupied the area. The 1972 photograph showed little change in the area except for the addition of several commercial facilities. In 1983, a paved parking lot had been constructed on the west end of the fill mound. No major changes were noted on the 1985 and 1987 photo coverages.

The U.S. Environmental Protection Agency's Environmental Monitoring Systems Laboratory in Las Vegas, Nevada, prepared this report for the Agency's Toxics and Waste Management Division in Region 9 at San Francisco, California and Office of Emergency and Remedial Response in Washington, D.C.

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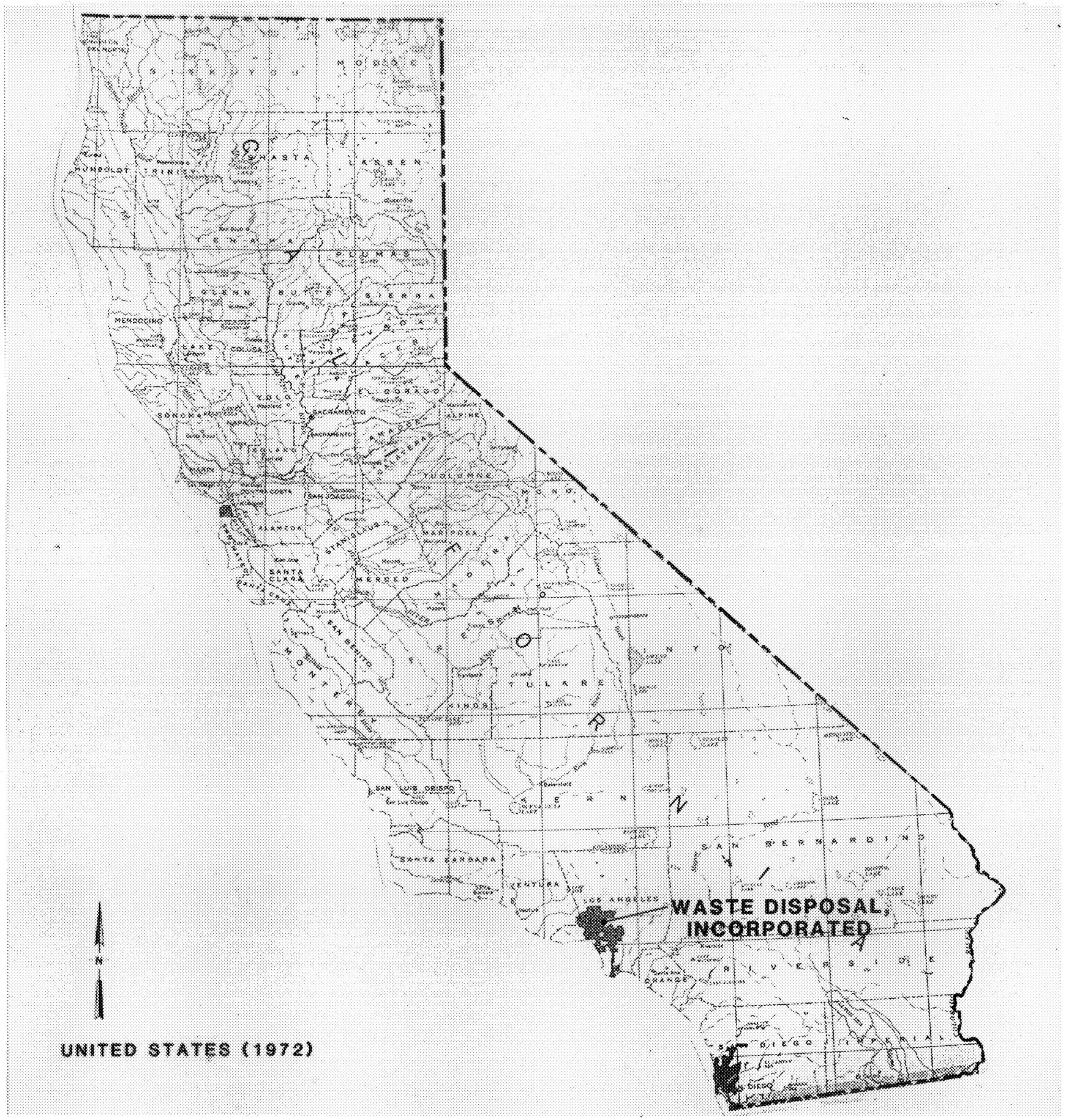


Figure 1. Site location map, California. Approximate scale 1:4,500,000.

Figure 1. Site location map, California. Approximate scale 1:4,500,000.

INTRODUCTION

This report presents a historical aerial photographic analysis of the Waste Disposal, Incorporated facility located in Whittier, California (Figure 1). This site is being investigated under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or "Superfund". The focus of the report is on the liquid and solid waste disposal practices utilized by this facility from the period 1928 through 1987. Black-and-white and color aerial photography spanning these years was used as the primary data input for the analysis.

The U.S. Environmental Protection Agency's Environmental Monitoring Systems Laboratory in Las Vegas, Nevada, prepared this report for the Agency's Toxics and Waste Management Division in Region 9 at San Francisco, California and Office of Emergency and Remedial Response in Washington, D.C.

METHODOLOGY

Stereoscopic pairs of aerial photographs are used to perform the analysis. Stereo viewing enhances the interpretation because it allows the analyst to observe the vertical as well as horizontal spatial relationships of natural and cultural features. Stereoscopy is also an aid in distinguishing between various shapes, tones, textures, and colors that can be found within the study area.

Evidence of waste burial is a prime consideration when conducting a hazardous waste analysis. Leachate or seepage resulting from burial and dumping of hazardous materials might threaten existing surface or ground-water sources. Pools of unexplained liquid are routinely noted because they can indicate seepage from buried wastes that may enter drainage channels and allow contaminants to move off the site. An excellent indicator of how well hazardous materials are being handled at a site is the presence or absence of spills, spill stains, and vegetation damage. Trees and other forms of vegetation that exhibit a marked color difference from surrounding members of the same species are labeled "dead," "stressed," or "damaged" based upon the degree of noticeable variation. Vegetation is so labeled only after consideration of the season in which the photographs were acquired.

The U.S. Environmental Protection Agency's Statement of Procedures on Floodplain Management and Wetlands Protection (Executive Orders 11988 and 11990, respectively) requires EPA to determine if removal or remedial actions at hazardous waste sites will affect wetlands or floodplains and to avoid or minimize adverse impacts on those areas. To aid in compliance with these orders, significant wetland areas located within and adjacent to the sites have been identified and delineated. However, the sites have not been visited to verify the accuracy of wetland identification.

Drainage analysis determines the direction a spill or surface runoff would follow. Direction of drainage is determined from analysis of the photographs and from U.S. Geological Survey topographic maps. Whenever they are available, 7.5-minute quadrangle maps (scale 1:24,000) are used to show site location and to provide geographic and topographic information.

Results of the analysis are shown on annotated overlays attached to the photos. The following table provides documentation of the photographs used in this report:

TABLE 1. DOCUMENTATION OF AERIAL PHOTOGRAPHY

Site name, location, and geographic coordinates	Figures	Date of acquisition	Original scale	Film type†	Photo source‡	Project	Roll	Line	Frame
Waste Disposal,	3	1928	1:18,000	B&W	WCCA	C300	UNK	UNK	378
Inc.,	4	02-20-37	1:12,000	B&W	WCCA	C4338	UNK	UNK	12
Whittier, CA	5	01-01-45	1:9,600	B&W	WCCA	C9250	UNK	UNK	57
33°57.0'N	6	10-19-53	1:20,000	B&W	ASCS	AXJ	13K	UNK	149
118°03.3'W	7	02-28-63	1:30,000	B&W	EROS	VASK	1	UNK	42
	8	09-23-68	1:29,000	B&W	UNK	2400	5	UNK	218
	9	10-30-72	1:30,000	B&W	EROS	VCYY	3	UNK	16
	10	10-27-83	1:6,000	CC	EMSL	83089	1	UNK	87
	11	02-10-85	1:36,000	B&W	IKCS	MKC-85	UNK	UNK	476A
	12	11-20-87	1:6,000	CC	EMSL	88704	1	1	4
	13	11-20-87	Oblique	CC	EMSL	88704	1	2	8

†Film type identification:
B&W: Black-and-White
CC: Conventional Color

‡Photo source identification:
ASCS: U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, Salt Lake City, Utah.
EROS: U.S. Department of the Interior, Geological Survey, Earth Resources Observation Systems Data center, Sioux Falls, South Dakota.
EMSL: U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory, Las Vegas, Nevada.
IKCS: I. K. Curtis Services, Inc., Burbank, California.
WCCA: Whittier College, Whittier, California.

Figure 2. Local site location map (Orthophoto), Whittier, California. Scale 1:24,000.

Figure 2. Local site location map (Orthophoto), Whittier, California. Scale 1:24,000.

ANALYSIS SUMMARY

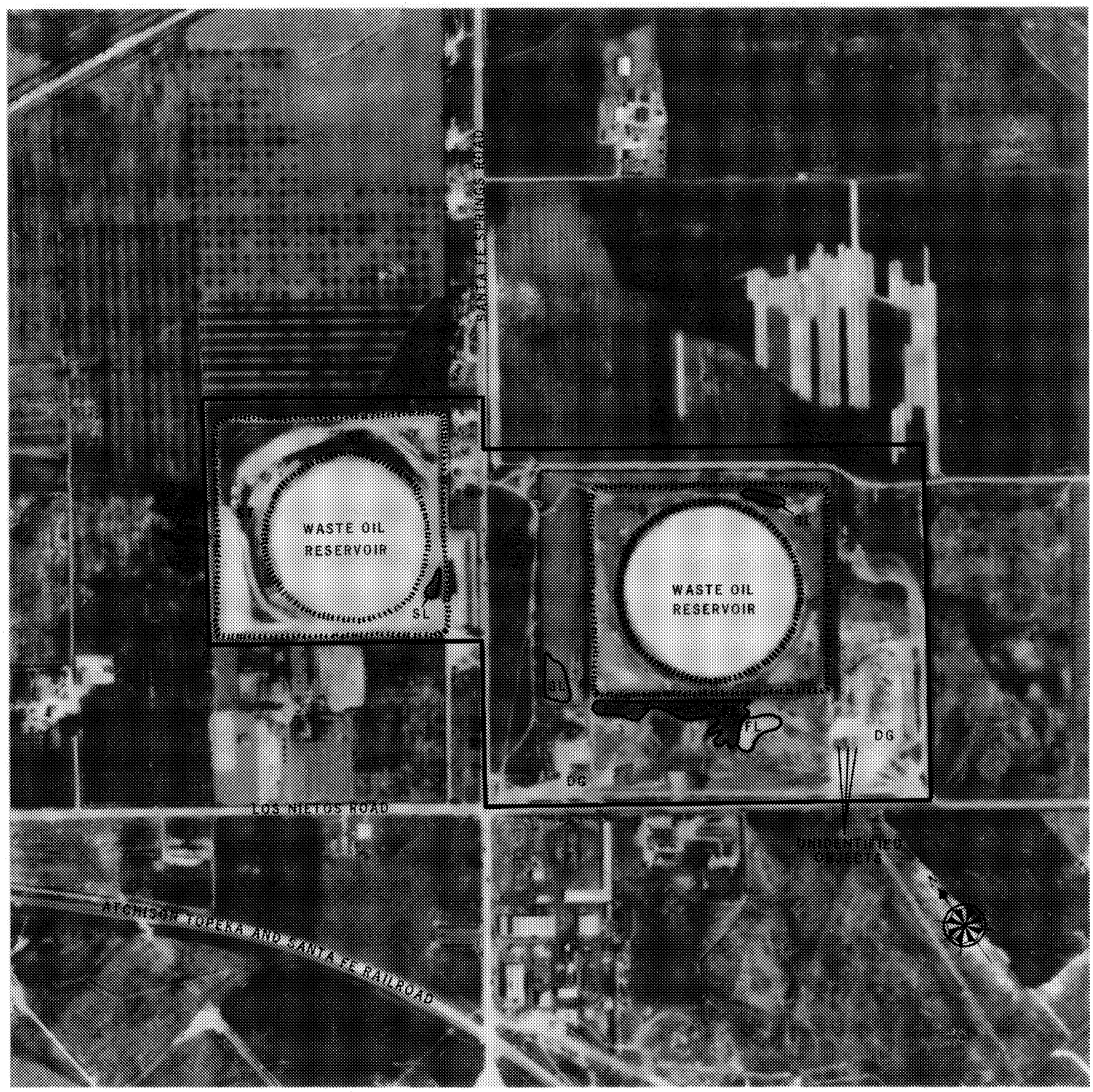
The Waste Disposal, Incorporated facility currently occupies approximately 30 acres in Whittier, California (Figure 2). The 1928 photography of the site showed it then occupied approximately 60 acres and consisted of two large, concrete-lined, waste oil reservoirs. The reservoirs were covered so contents could not be determined. There were no support structures or other waste disposal structures within the site. The 1937 photography revealed no change in the reservoirs. Four unlined lagoons had been added. These lagoons were empty, and their deteriorated condition suggested an extensive period of non-use. The 1945 photography showed the reservoirs with their covers removed. Both were empty. The area surrounding the reservoirs had been cleaned and scraped. A large pit, containing a dark liquid, was noted in the southeast corner of the site. By 1953 the westernmost reservoir had been removed and commercial facilities constructed in the area. No change was noted at the remaining reservoir. The four lagoons had been razed and the area cleared and leveled. Commercial facilities were being constructed on the southern and eastern portions of the site. In 1963, the remaining reservoir was being filled in. Further commercial development was noted. Filling in of the reservoir was completed by 1968 and a large, leveled, fill mound occupied the area. Commercialization along the west side of the site had occurred. No change was noted in 1972. By 1983, the western portion of the fill mound had been paved and turned into a parking lot. One of the commercial facilities had 4 vertical tanks, 12 rectangular bins, and approximately 305 drums on its property. The 1985 photography did not reveal any change. The only change noted on the 1987 photography was the removal of two vertical tanks, the rectangular bins and the 55-gallon drums from the commercial facility.

Drainage from the site is to the east towards the Sorenson Avenue Drain which leads to LaCanada Verde Creek. There are no major waterways close enough to the site to pose a 100-year flood event.

PHOTO ANALYSIS

1928 (FIGURE 3)

The Waste Disposal, Incorporated facility was operational on this photo date. The poor quality of the photograph did not permit identification of small features within the site. Two large, waste oil reservoirs occupy most of the facility property. The reservoirs appear identical in construction and size. The walls of the reservoirs appear to be concrete, while a secondary earthen berm surrounds the reservoirs. The reservoir diameters are approximately 500 feet. Both reservoirs appear to have covers of unknown material across the top. There are no identifiable support structures within the site. Three unidentified objects are noted in the southeast corner. The objects are possibly vehicles. A large pool of dark liquid is visible outside the southern earthen containment wall of the easternmost reservoir. A smaller pool is noted in the northeast corner, inside the earthen wall. Staining is visible around the westernmost reservoir. A pile of fill material is noted adjacent to the large pool of standing liquid. Land use surrounding the site to the north, south, and east is mostly agricultural. Predominantly oil fields and oil-related industries occupy land west of the site.



INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
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- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
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- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 3. Waste Disposal, Incorporated. 1928. Approximate scale 1:5,000.

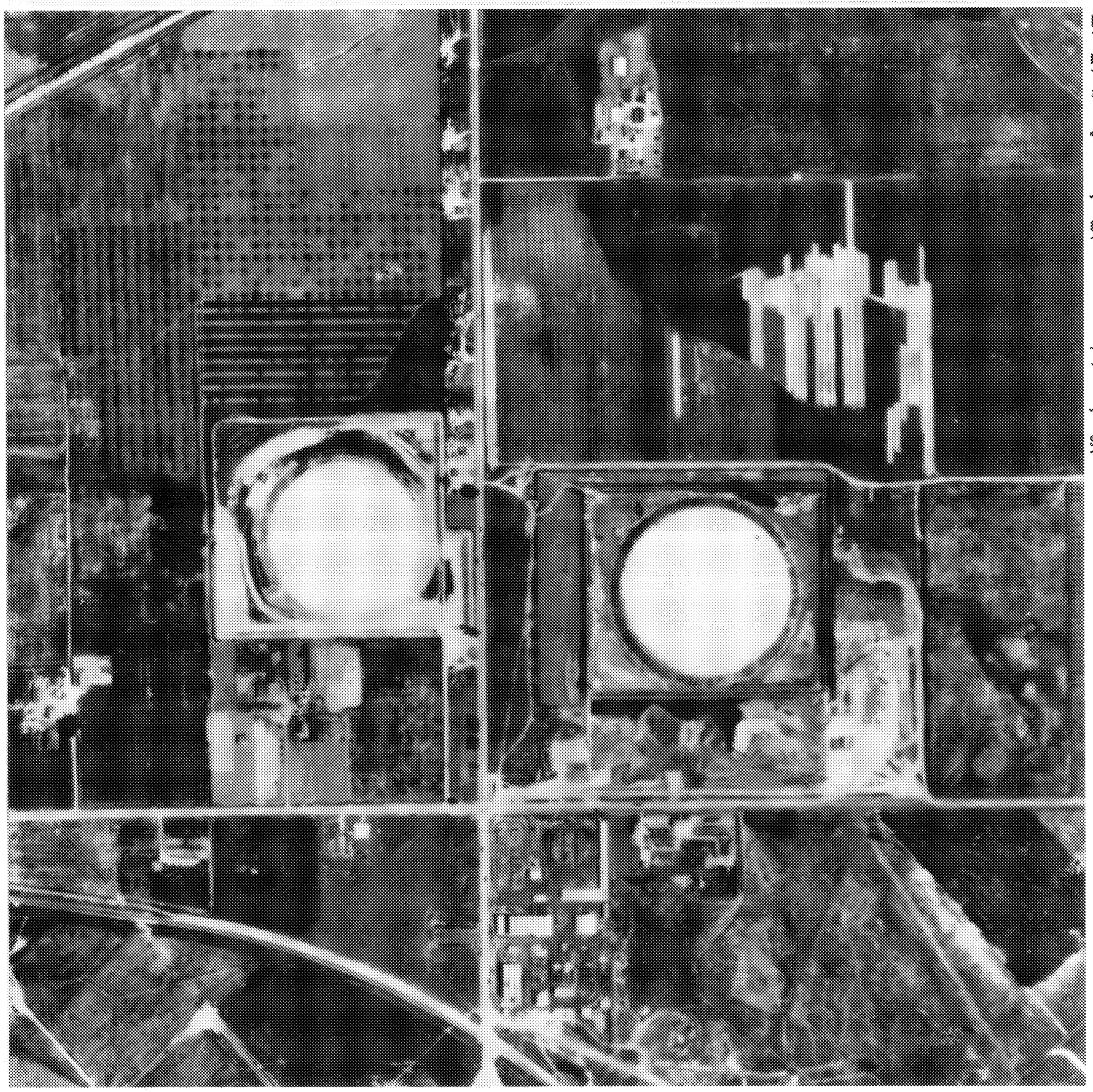

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Figure 3. Waste Disposal, Incorporated. 1928. Approximate scale 1:5,000.

FEBRUARY 20, 1937 (FIGURE 4)

There is no visible change to the two large reservoirs at the Waste Disposal, Incorporated facility since the 1928 photo coverage (Figure 3). The firmness of the reservoir covers can be attested to by the signs that have been painted on their surfaces. Staining is noted at the joining seams of the westernmost cover. Puddles of standing liquid are noted around both reservoirs. The lighter toned puddles appear to be standing rainwater. The darker toned puddles are probably rainwater covering heavily stained ground. Four, unlined, waste lagoons are visible east of the reservoirs. The deteriorated condition of the containment walls surrounding these lagoons suggests that they are no longer in use. Standing liquid within the containment walls is probably standing rainwater. Towers have been erected within the earthen containments of the reservoirs. No support structures are visible within the site. A small unlined impoundment is noted north of the westernmost reservoir. Standing water is visible within the containment. This impoundment does not appear to be associated with the site. Land-use for the surrounding area remains unchanged from that which was previously reported.

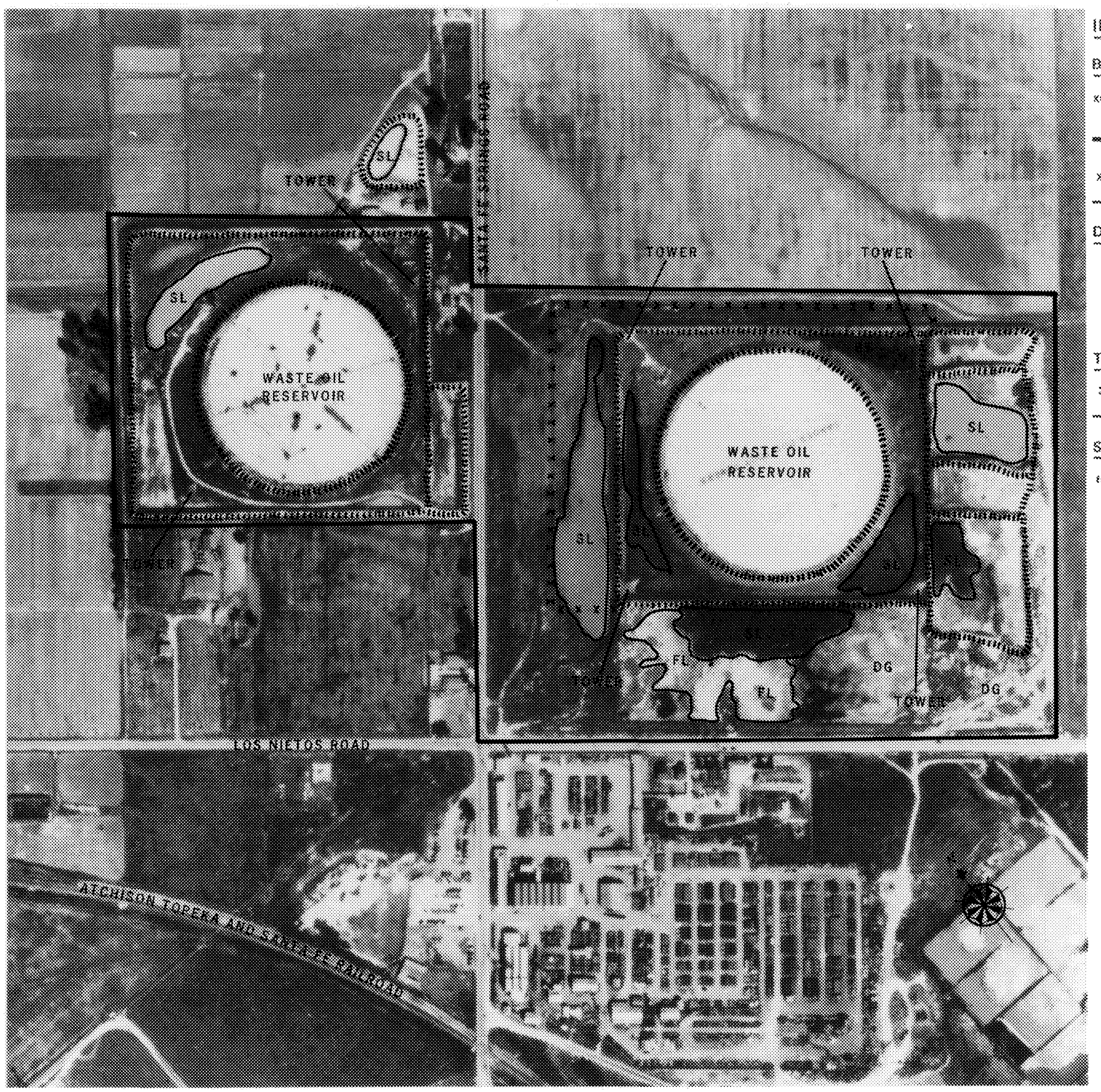

Figure 4. Waste Disposal, Incorporated, February 20, 1937. Approximate scale 1:3,350.

INTERPRETATION CODE

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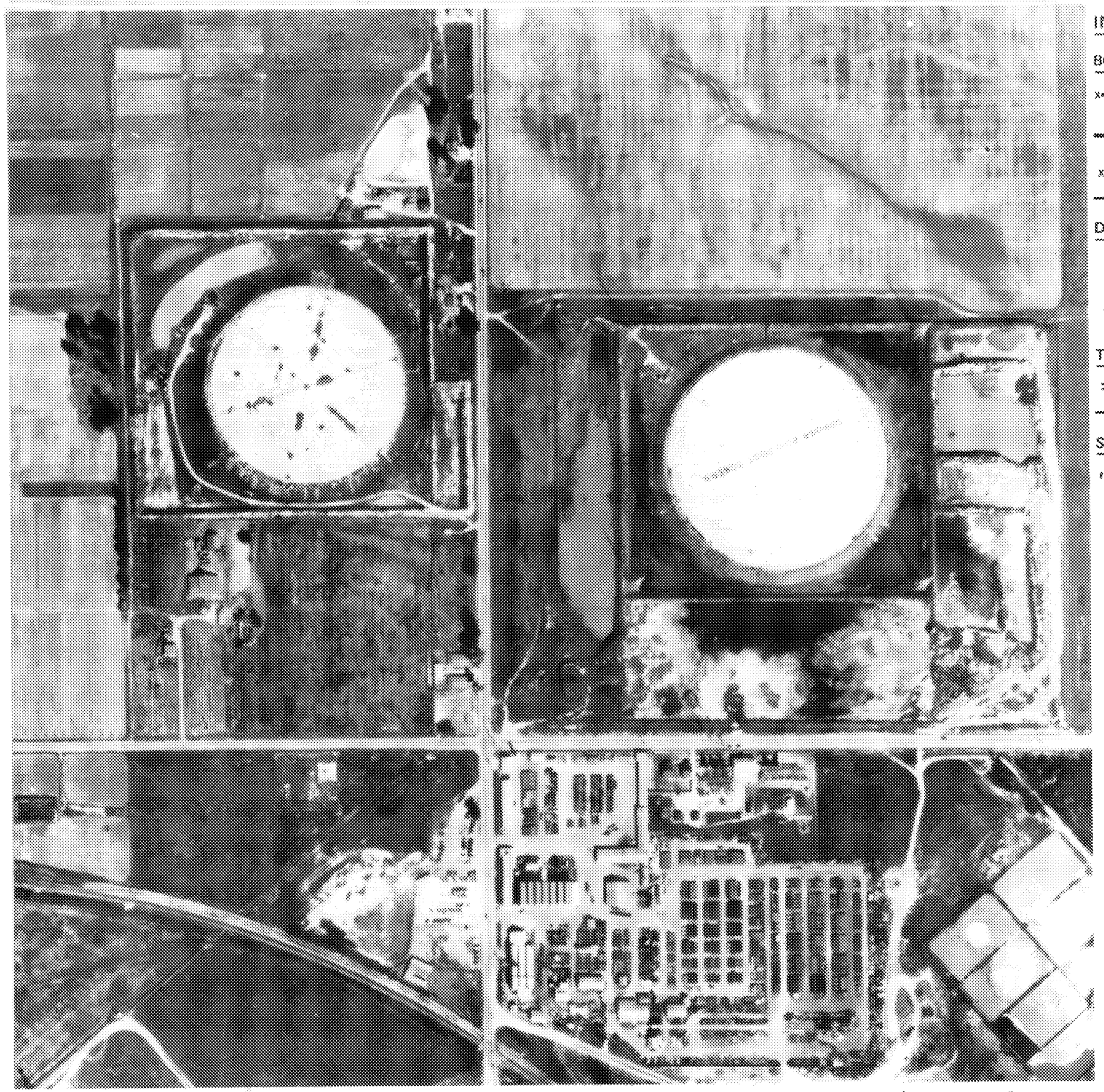

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Figure 4. Waste Disposal, Incorporated, February 20, 1937. Approximate scale 1:3,350.

JANUARY 1, 1945 (FIGURE 5)

Clean up of the Waste Disposal, Incorporated facility has occurred since the 1937 photo coverage (Figure 4). The covers have been removed from the two reservoirs and the contents removed. It can now be seen that the reservoirs are concrete lined. All containment walls surrounding the reservoirs are in good condition. The surrounding ground has been scraped and is relatively free of staining. The six towers previously noted have been removed. The four lagoons on the east end of the site have been abandoned. The containment walls are being removed. A pit has been excavated in the southeast corner. This pit contains a dark liquid. A light shrub-like, vegetative growth has sprouted up within the old lagoon containments and south of the eastern reservoir.

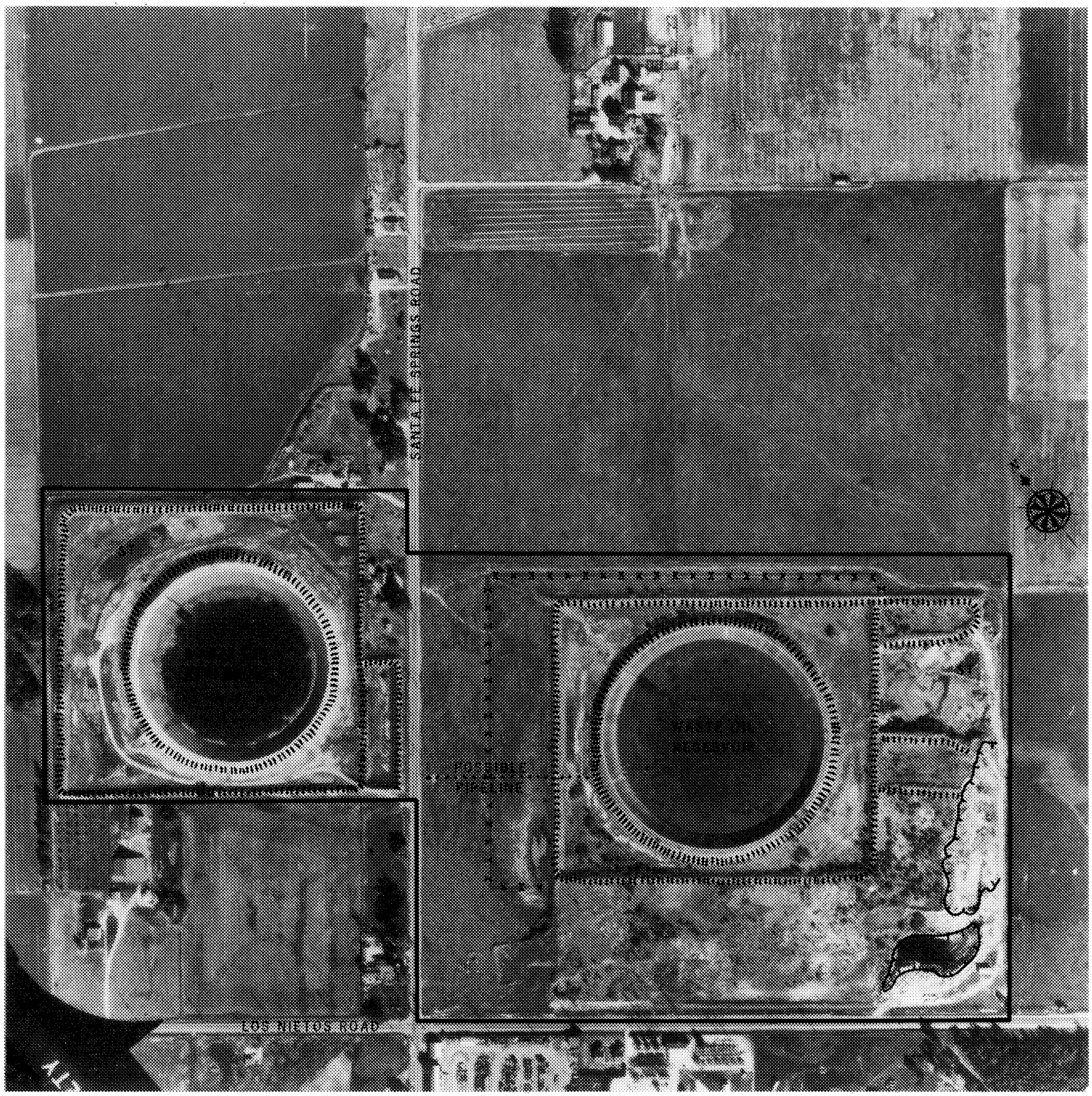

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Figure 5. Waste Disposal, Incorporated, January 1, 1945. Approximate scale 1:3,350.

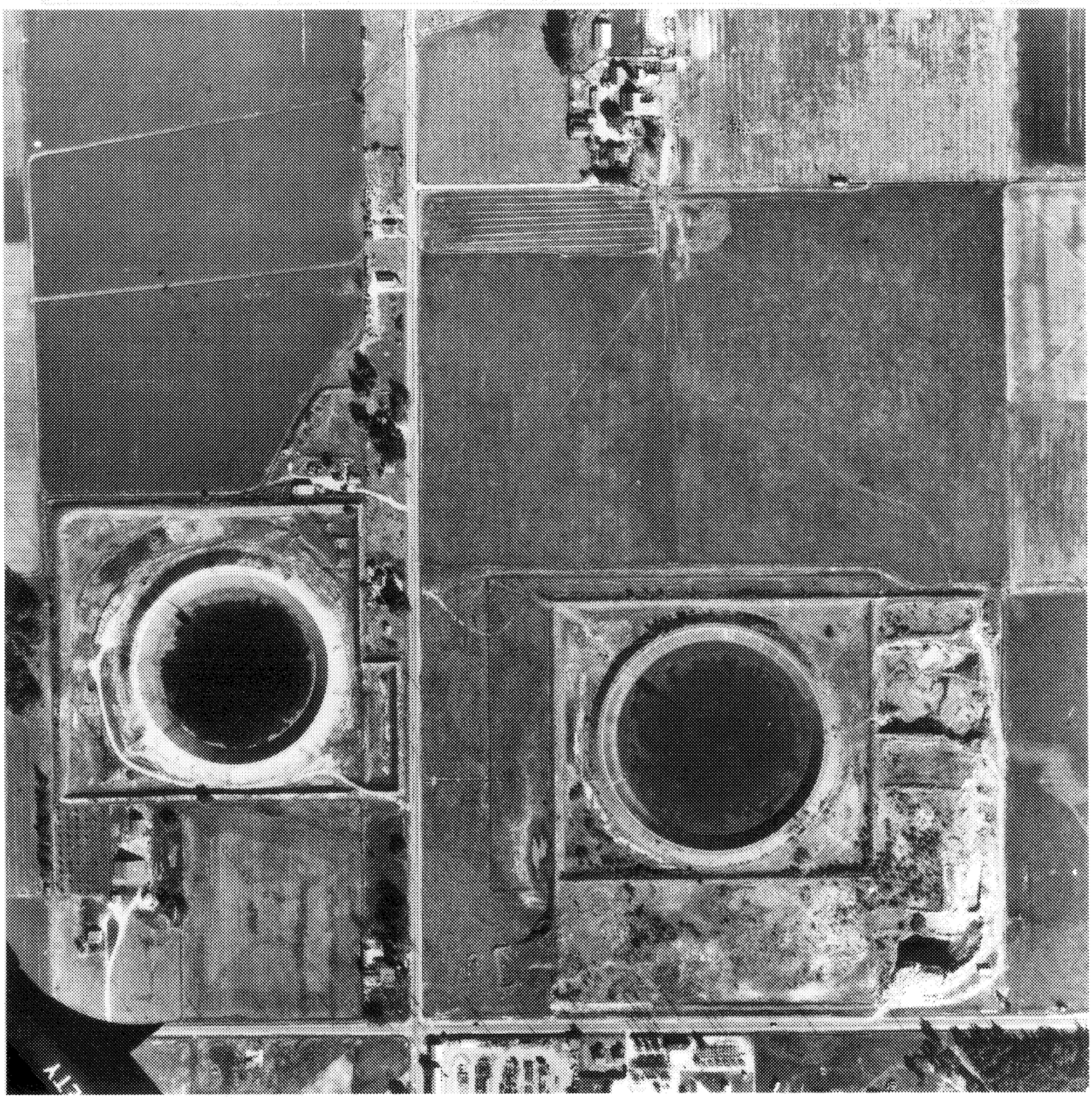

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Figure 5. Waste Disposal, Incorporated, January 1, 1945. Approximate scale 1:3,350.

OCTOBER 19, 1953 (FIGURE 6)

A large change has occurred at the Waste Disposal, Incorporated facility since the 1945 photo coverage (Figure 5). The westernmost reservoir has been torn down and commercial facilities now occupy the area (not shown on photo). The site has been decreased in size by this and a commercial operation southwest of the remaining reservoir. The site is now bounded by Santa Fe Springs Road to the west, Greenleaf Avenue to the east, Los Nietos Road to the south, and an empty field to the north. The remaining reservoir has changed little since 1945. A crossover access ramp has been constructed along the southern edge of the reservoir. Fifteen quonset hut type structures have been set up in the southeast corner of the site. These structures appear to be new commercial enterprises and not linked to the waste disposal facility. These structures have been set up over the area where a pit had been located on the 1945 photography (Figure 5). The land east of the reservoir, which previously contained waste lagoons, has now been cleared. A large mound of fill material is noted in the area. To the west of the reservoir is an area of disturbed ground which appears to be construction activity. An empty, unlined trench, an oil well, and a small pond of standing liquid are also visible in this area. The area south of the reservoir contains five buildings and nine vertical tanks. Staining, fill material, and standing liquid are noted within the reservoir itself. The outer, secondary containment, wall remains intact except for the eastern wall near the fill pile. Several smaller piles of fill material are also noted in the area.

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Figure 6. Waste Disposal, Incorporated, October 19, 1953. Approximate scale 1:3,200.

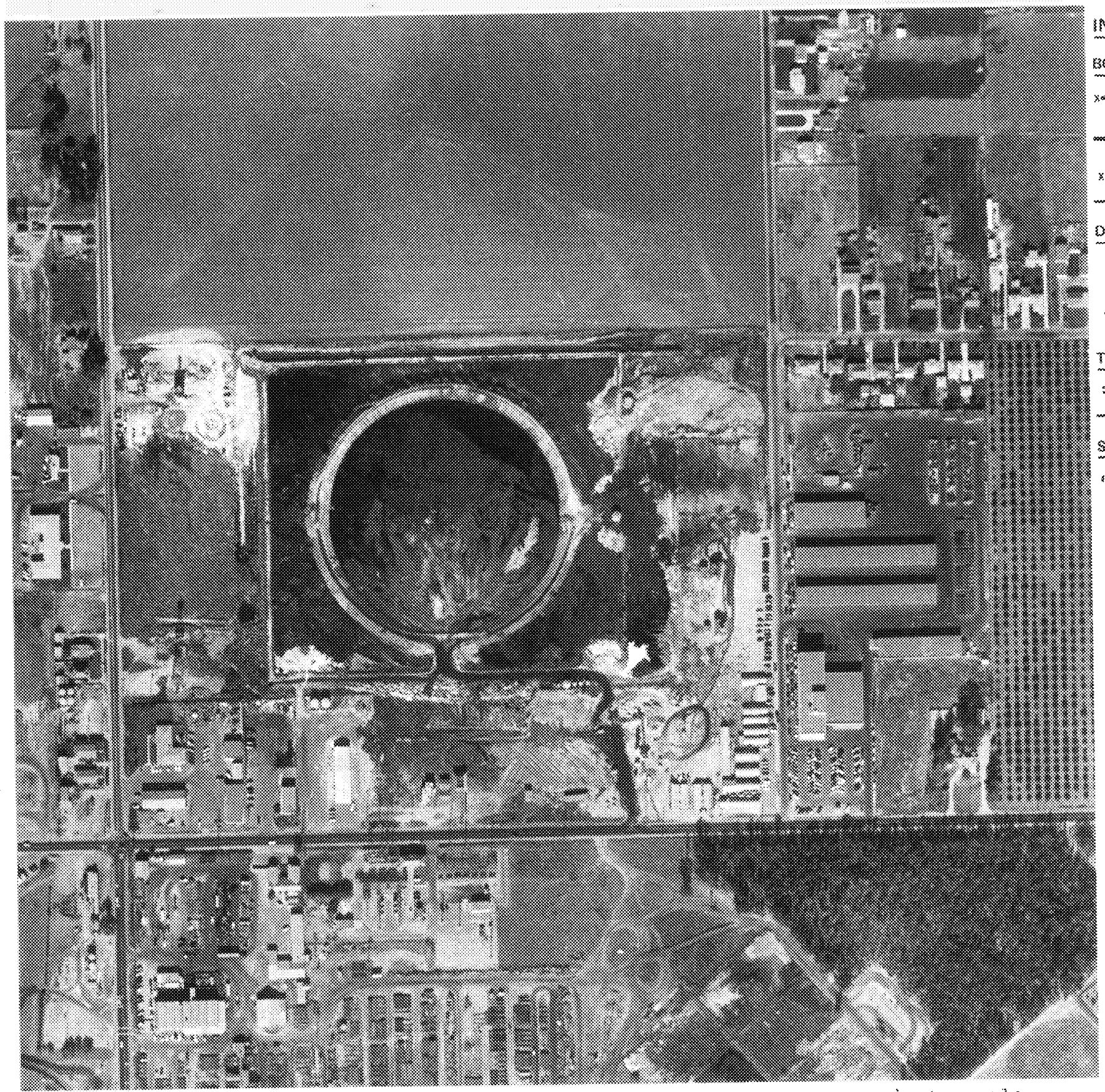

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Figure 6. Waste Disposal, Incorporated, October 19, 1953. Approximate scale 1:3,200.

FEBRUARY 28, 1963 (FIGURE 7)

Commercial facilities now surround the Waste Disposal, Incorporated facility on the south, west, and east. A school has been constructed to the north. The area of the reservoir is being filled in. A large mound of fill now covers the reservoir and the area between the reservoir and outer secondary containment wall. South of the fill mound, several new buildings have been added. Insufficient information is available to determine which, if any, constitute the Waste Disposal, Incorporated facility. Nineteen quonset huts and six new buildings have been added to the east side of the site. Two vertical tanks remain within the area.

Figure 7. Waste Disposal, Incorporated, February 28, 1963. Approximate scale 1:4,200.

INTERPRETATION CODE

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Figure 7. Waste Disposal, Incorporated, February 28, 1963. Approximate scale 1:4,200.

SEPTEMBER 23, 1968 (FIGURE 8)

The major change noted at the Waste Disposal, Incorporated facility since the 1963 photo coverage (Figure 7) is in the area of the waste reservoir. The area has been completely filled in and leveled. No traces remain of the reservoir nor the old waste lagoons. The ground is cleared and devoid of stains. Ground scarring and vehicle tracks crisscross the top of the fill mound. New commercial enterprises have been established west and south of the site. Four buildings have been removed directly east of the fill mound. Two vertical tanks and minor staining are noted within the study area.

INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)
- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK
- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 8. Waste Disposal, Incorporated, September 23, 1968. Approximate scale 1:3,800.

INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)

- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK

- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 8. Waste Disposal, Incorporated, September 23, 1968. Approximate scale 1:3,800.

OCTOBER 30, 1972 (FIGURE 9)

Little change is noted at the Waste Disposal, Incorporated facility since the 1968 photo coverage (Figure 8). Excavation and clearing activity has occurred east of the fill mound. Minor staining is visible near the commercial establishments along the east side of the study area. Two vertical tanks are also noted. There is no evidence of waste disposal activity currently being conducted at the facility. Perimeter fencing partially encloses the site.

INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

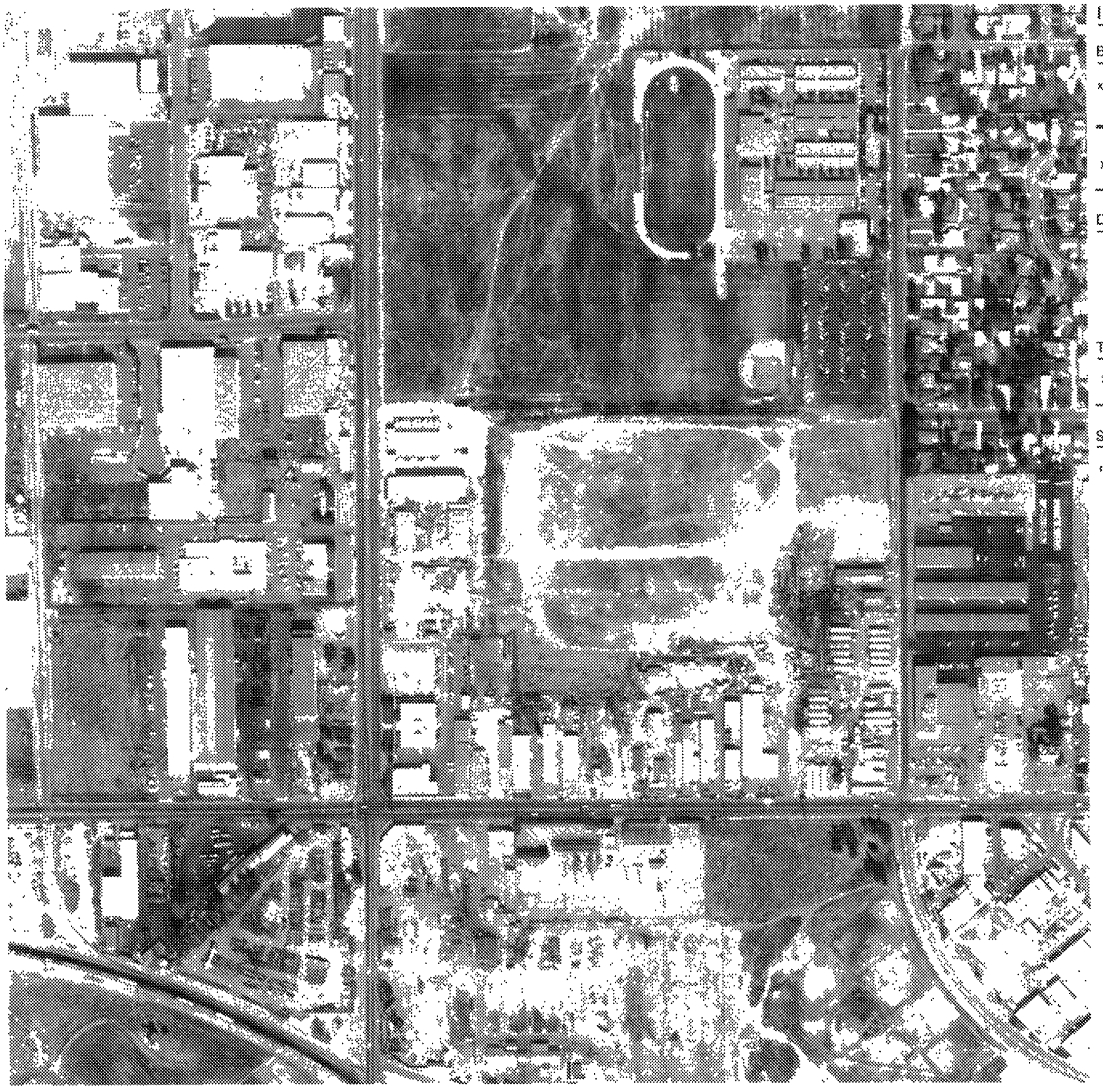
TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)
- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK
- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 9. Waste Disposal, Incorporated, October 30, 1972. Approximate scale 1:4,100.



INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

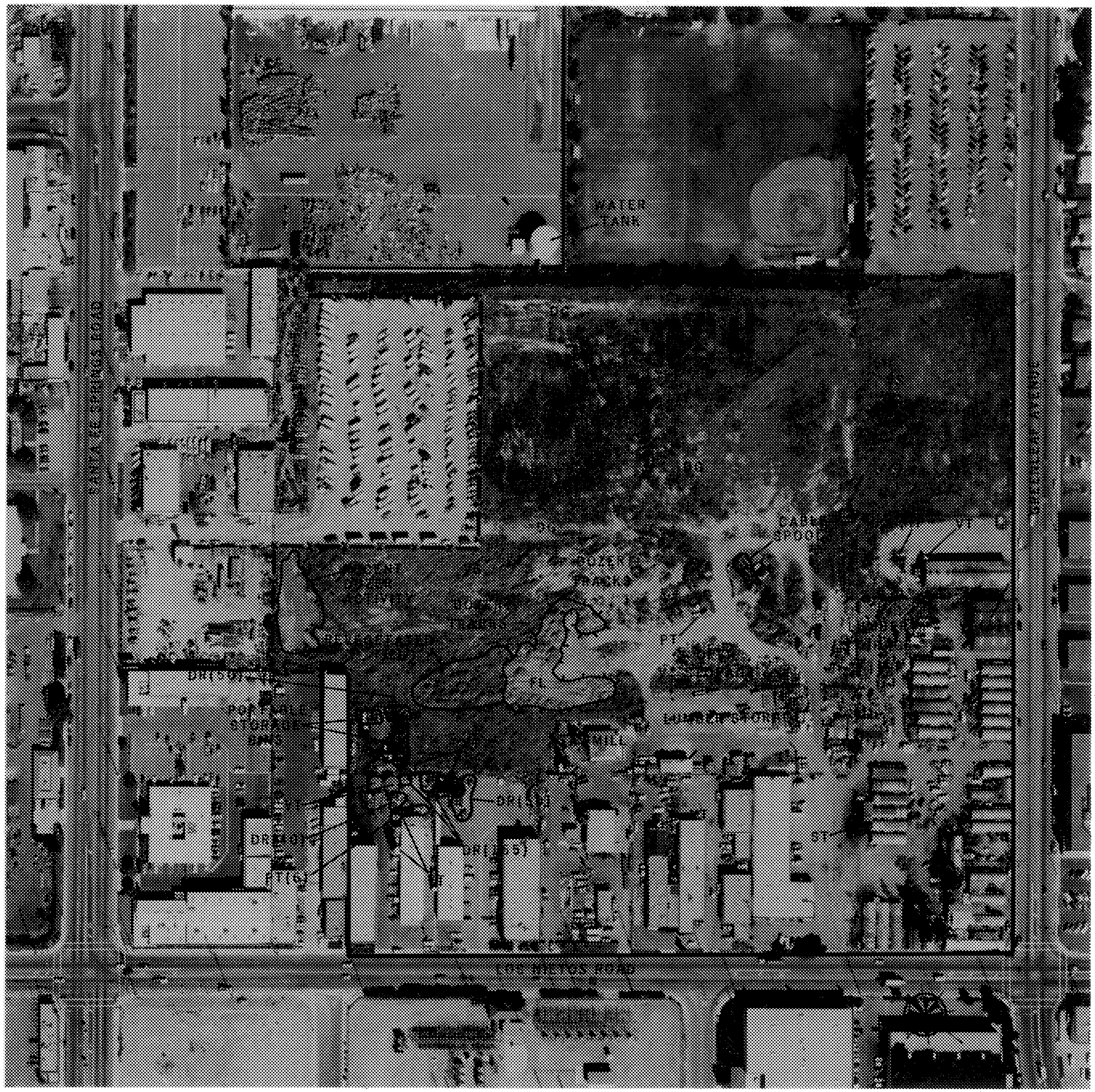
SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)
- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK
- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 9. Waste Disposal, Incorporated, October 30, 1972. Approximate scale 1:4,100.

OCTOBER 27, 1983 (FIGURE 10)

Changes noted at the Waste Disposal, Incorporated facility since the 1972 photo coverage (Figure 9) have mostly occurred in the area of the fill mound. The western end of the mound has been paved and made into a parking lot. Old dozer tracks are visible along the southern slope of the mound, and recent dozer activity is visible south of the new parking lot. The parking lot is fenced, separating it from the fill mound, and appears to be related to the adjacent commercial boating facility. Vegetation growth has covered the fill mound and the open areas between the mound and commercial facilities. Patches of disturbed ground are visible within these vegetated areas. A large fill pile also occupies the area. The westernmost facility, within the study area, has 4 vertical storage tanks, 12 rectangular storage bins (portable), approximately 305 drums, and 6 pressure tanks. Six vertical storage tanks, one horizontal tank, and one pressure tank are located in different areas within the remainder of the study area. Vegetation stress noted within the area is probably caused by vehicular activity.



INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- x x x x x x FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)

- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK

- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 10. Waste Disposal, Incorporated, October 27, 1983. Approximate scale 1:2,400.

INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)

- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK

- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 10. Waste Disposal, Incorporated, October 27, 1983. Approximate scale 1:2,400.

FEBRUARY 10, 1985 (FIGURE 11)

Due to the poor quality of this photograph, small details were not interpretable. There does not appear to be any visible change at the Waste Disposal, Incorporated facility since the 1983 photo coverage (Figure 10). Vegetation growth within the area has increased. The disturbed ground noted on the photograph appears to have been caused by vehicular traffic.

INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)
- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK
- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 11. Waste Disposal, Incorporated, February 10, 1985. Approximate scale 1:4,750.

INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)
- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK
- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL ARE
- WL WETLAND

Figure 11. Waste Disposal, Incorporated, February 10, 1985. Approximate scale 1:4,750.

NOVEMBER 20, 1987 (FIGURE 12)

The major change noted at the Waste Disposal, Incorporated facility since the 1985 photo coverage (Figure 11) has been the leveling and grading of the southern slope of the fill mound. Grader tracks are also visible on the surface of the fill mound. Heavy equipment is noted in the area. Two vertical tanks remain at the westernmost facility within the study area. All previously noted drums, storage bins, and two vertical tanks have been removed (Figure 10). This facility presents a neat, recently cleaned, appearance.

INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)
- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK
- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 12. Waste Disposal, Incorporated, November 20, 1987. Approximate scale 1:2,300.

INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)
- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
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- CA CLEARED AREA
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- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 12. Waste Disposal, Incorporated, November 20, 1987. Approximate scale 1:2,300.

NOVEMBER 20, 1987 (FIGURE 13)

This photograph presents an oblique view of the Waste Disposal, Incorporated facility. The view is looking to the northwest.

INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)

- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK

- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 13. Waste Disposal, Incorporated, November 20, 1987. Oblique looking northwest.

INTERPRETATION CODE

BOUNDARIES AND LIMITS

- FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- FENCE
- STUDY AREA

DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

TRANSPORTATION/UTILITY

- VEHICLE ACCESS
- RAILWAY

SITE FEATURES

- DIKE
- STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)

- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK

- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 13. Waste Disposal, Incorporated, November 20, 1987. Oblique looking northwest.